SUMMARY LEAD-CONTAMINATED SOIL SAMPLING REPORT

Gary/Chicago International Airport
6001 West Industrial Avenue
Gary, Indiana 464006
Task Order # RE019-6
IES Project # S47706

Prepared for:
Mr. Steve Newlin
AECOM
303 East Wacker Drive
Suite 900
Chicago, Illinois 60601

Prepared by:
Industrial & Environmental Services, LLC
7550 East Melton Road
Gary, IN 46403

January 7, 2012

Industrial & Environmental Services, LLC

7550 E. Melton Road
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9909 Roosevelt Road, Suite 104
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December 18, 2012

Gary/Chicago International Airport
c/o Mr. Scott Wheeler, P.E.
AECOM
6001 West Industrial Avenue
Gary, IN 46406

RE: TASK ORDER # RE019-6
Lead Contaminated Soil Sampling and Securement
Cline Avenue Service Road, North of Gary Avenue
Gary, Indiana
IES Project Number S47706

Dear Mr. Wheeler:

The following is a summary of activities performed by Industrial & Environmental Services, LLC ("IES") which began on October 2, 2012 near the Cline Avenue Service Road, just north of Gary Avenue, Gary, Indiana.

Cause of Incident: Discovery of the piles after the development of the proposed EJ & E Railroad relocation just north of the exit of the Indiana Toll Road, Cline Avenue Exit..

Product: Lead-contaminated Soil.

Location of Incident: Just east of the Cline Avenue Northbound Service Road, approximately ¼ mile, north of Gary Avenue, Gary, Indiana.

Impacted Areas: The area just south of the new EJ & E Railroad tracks.

Mr. Steve Newlin of AECOM contacted IES and later issued Task Order # RE019-6 for additional sampling and securement of three large piles of lead-contaminated soil. Mr. Dirk Anderson of DLZ had previously collected samples from the piles and it was determined that leachable lead exceeded the landfill disposal requirements. (see analytical report in Appendix 1). Mr. Newlin advised that there were soils that were previously mixed with a product called Free Flow 200® that yielded favorable results and asked IES to contact Free Flow.

Site Activities: Tuesday, October 2, 2012.
Mr. Steve Newlin of AECOM gave IES verbal permission to proceed with the sampling and securement of the soil, IES mobilized to the site to collect additional samples, and to cover the three large piles with 6-mil thick plastic. (see photograph in Appendix 2). The piles measured as follows:

1. 120 feet long by 40 feet wide by approximately 3.5 feet in height.
2. 80 feet long by 30 feet wide by approximately 4.5 feet in height
3. 100 feet long by 20 feet wide by approximately 3.5 feet in height

A total of four rolls of 6-mil thick plastic and two rolls of 4-mil thick plastic was utilized to cover the piles. The plastic was secured by the placement of old tires and soil on top of the plastic.

Based on the estimated volume of soil, it was later discussed with Mr. Newlin to take additional samples for leachable lead to assure that analytical results were more representative of the soil. Mr. Newlin agreed and verbally authorized five additional samples.

Site Activities: Monday, October 8, 2012
IES arrived on-site to collect five samples from the three piles. IES collected two composite samples from the furthest north pile, two composite samples from the furthest south pile, and one composite sample from the middle pile. The samples were properly labeled and placed into a cooler and chilled with ice. The samples were taken to an independent laboratory for analysis. The results of the five samples are located in Appendix 3.

Site Summary:
IES was contacted by AECOM regarding lead-contaminated soil based on analytical samples taken by Mr. Dirk Anderson of DLZ. The soils were contained on-site by covering the large piles with plastic sheeting until an appropriate plan of action could be determined.

◆◆◆◆◆◆◆

If you have any questions regarding this summary report, please contact our office at (219) 939-5000.

Sincerely,
Industrial & Environmental Services, LLC

Robert D. Casbon
Director of Operations and Emergency Response

Attachments
cc: Mr. Steve Newlin, AECOM (w/attachments)

APPENDIX 1

Initial Analytical Results from DLZ

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September 14, 2012

DLZ Industrial
7011 Indianapolis Blvd.
Hammond, IN 46324

Work Order No.: 12I0192

Re: REPO18 T.O. #11 - Sta 143+00

Dear Dirk Anderson:

Microbac Laboratories, Inc. - Chicagoland Division received 4 sample(s) on 9/6/2012 4:48:00PM for the analyses presented in the following report as Work Order 12I0192.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Robert Crookston, Interim Managing Director at robert.crookston@microbac.com. You may also contact Sean Hyde, Chief Operating Officer at sean.hyde@microbac.com or James Nokes, President at james.nokes@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Dan Paluch
Project Manager

Microbac®

WORK ORDER SAMPLE SUMMARY

Date: *Friday, September 14, 2012*

Client: DLZ Industrial
Project: REPO18 T.O. #11 - Sta 143+00
Lab Order: 12I0192

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
12I0192-01	Soil Sample #1		09/06/2012 15:20	9/6/2012 4:48:00PM
12I0192-02	Soil Sample #1 - TCLP		09/06/2012 15:20	9/6/2012 4:48:00PM
12I0192-03	Soil Sample #2 Near Pile		09/06/2012 15:40	9/6/2012 4:48:00PM
12I0192-04	Soil Sample #2 - TCLP		09/06/2012 15:40	9/6/2012 4:48:00PM

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CASE NARRATIVE **Date:** *Friday, September 14, 2012*

Client: DLZ Industrial
Project: REPO18 T.O. #11 - Sta 143+00
Lab Order: 12I0192

The Matrix Spike and Matrix Spike Duplicate performed on the Soil Sample #1 and Soil Sample #2 Near Pile samples failed the accuracy criteria for Lead. This bias is due to the high indigenous analyte concentration (relative to the spike amount).

MS and MSD on sample Soil Sample #2 Near Pile failed accuracy criteria with low bias for Hexachlorocyclopentadiene and N-nitrosodiphenylamine. -MS failed accuracy criteria with low bias for Biphenyl and with high bias for 4-chloro-3-methyphenol.

Acetone concentration above linear range in 12i0192-01 and -03. 50x dilutions of the methanol extracts were analyzed, with acetone concentration below the PQL. Therefore acetone will be reported with an E qualifier from the undiluted analysis.

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Analytical Results

Date: *Friday, September 14, 2012*

Client: DLZ Industrial
Client Project: REPO18 T.O. #11 - Sta 143+00
Client Sample ID: Soil Sample #1
Sample Description:
Matrix: Solid

Work Order/ID: 12I0192-01
Sampled: 09/06/2012 15:20
Received: 09/06/2012 16:48

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Polychlorinated Biphenyls		Method: **SW-846 8082** Prep Method: **SW846 3550B**				Analyst: **ep** Prep Date/Time: **09/11/2012 06:24**	
Aroclor 1016	A	***ND***	0.033		mg/Kg dry	1	09/12/2012 14:28
Aroclor 1221	A	***ND***	0.033		mg/Kg dry	1	09/12/2012 14:28
Aroclor 1232	A	***ND***	0.033		mg/Kg dry	1	09/12/2012 14:28
Aroclor 1242	A	***ND***	0.033		mg/Kg dry	1	09/12/2012 14:28
Aroclor 1248	A	***ND***	0.033		mg/Kg dry	1	09/12/2012 14:28
Aroclor 1254	A	***0.48***	0.033		mg/Kg dry	1	09/12/2012 14:28
Aroclor 1260	A	***ND***	0.033		mg/Kg dry	1	09/12/2012 14:28
Aroclor 1262	A	***ND***	0.033		mg/Kg dry	1	09/12/2012 14:28
Aroclor 1268	A	***ND***	0.033		mg/Kg dry	1	09/12/2012 14:28
Total PCB's	A	***0.48***	0.033		mg/Kg dry	1	09/12/2012 14:28
Surr: Decachlorobiphenyl	S	30.00	38-128	S	%REC	1	09/12/2012 14:28
Surr: Tetrachloro-m-xylene	S	50.00	40-130		%REC	1	09/12/2012 14:28
Semivolatile Organic Compounds		Method: **SW-846 8270C** Prep Method: **SW846 3550A**				Analyst: **clr** Prep Date/Time: **09/12/2012 06:45**	
1,2,4-Trichlorobenzene	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
1,2-Dichlorobenzene	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
1,2-Diphenyl-hydrazine	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
1,3-Dichlorobenzene	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
1,4-Dichlorobenzene	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
2,2'-oxybis(1-chloropropane)	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
2,4,5-Trichlorophenol	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
2,4,6-Trichlorophenol	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
2,4-Dichlorophenol	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
2,4-Dimethylphenol	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
2,4-Dinitrophenol	A	***ND***	7.8		mg/Kg dry	4	09/12/2012 15:42
2,4-Dinitrotoluene	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
2,6-Dichlorophenol	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
2,6-Dinitrotoluene	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
2-Chloronaphthalene	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
2-Chlorophenol	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
2-Methylnaphthalene	A	***3.1***	1.6		mg/Kg dry	4	09/12/2012 15:42
2-Methylphenol	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
2-Nitroaniline	A	***ND***	7.8		mg/Kg dry	4	09/12/2012 15:42
2-Nitrophenol	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
3,3'-Dichlorobenzidine	A	***ND***	7.8		mg/Kg dry	4	09/12/2012 15:42
3/4-Methylphenol	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
3-Nitroaniline	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
4,6-Dinitro-2-methylphenol	A	***ND***	7.8		mg/Kg dry	4	09/12/2012 15:42
4-Bromophenyl phenyl ether	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42
4-Chloro-3-methylphenol	A	***ND***	3.2		mg/Kg dry	4	09/12/2012 15:42
4-Chloroaniline	A	***ND***	1.6		mg/Kg dry	4	09/12/2012 15:42

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Analytical Results

Date: *Friday, September 14, 2012*

Client: DLZ Industrial
Client Project: REPO18 T.O. #11 - Sta 143+00
Client Sample ID: Soil Sample #1
Sample Description:
Matrix: Solid

Work Order/ID: 12I0192-01
Sampled: 09/06/2012 15:20
Received: 09/06/2012 16:48

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **SW-846 8270C**					Analyst: **clr**
Semivolatile Organic Compounds		Prep Method: **SW846 3550A**					Prep Date/Time: **09/12/2012 06:45**
4-Chlorophenyl phenyl ether	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
4-Nitroaniline	A	*ND*	7.8		mg/Kg dry	4	09/12/2012 15:42
4-Nitrophenol	A	*ND*	7.8		mg/Kg dry	4	09/12/2012 15:42
Acenaphthene	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Acenaphthylene	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Acetophenone	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Aniline	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Anthracene	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Benzidine	A	*ND*	7.8		mg/Kg dry	4	09/12/2012 15:42
Benzo[a]anthracene	A	*4.0*	1.6		mg/Kg dry	4	09/12/2012 15:42
Benzo[a]pyrene	A	*26*	4.0		mg/Kg dry	10	09/12/2012 17:01
Benzo[b]fluoranthene	A	*13*	1.6		mg/Kg dry	4	09/12/2012 15:42
Benzo[g,h,i]perylene	A	*11*	1.6		mg/Kg dry	4	09/12/2012 15:42
Benzo[k]fluoranthene	A	*3.2*	1.6		mg/Kg dry	4	09/12/2012 15:42
Benzoic acid	A	*ND*	7.8		mg/Kg dry	4	09/12/2012 15:42
Benzyl alcohol	A	*ND*	3.2		mg/Kg dry	4	09/12/2012 15:42
Bis(2-chloroethoxy)methane	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Bis(2-chloroethyl)ether	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Bis(2-ethylhexyl)phthalate	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Butyl benzyl phthalate	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Carbazole	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Chrysene	A	*24*	1.6		mg/Kg dry	4	09/12/2012 15:42
Dibenz[a,h]anthracene	A	*6.8*	1.6		mg/Kg dry	4	09/12/2012 15:42
Dibenzofuran	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Diethyl phthalate	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Dimethyl phthalate	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Di-n-butyl phthalate	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Di-n-octyl phthalate	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Fluoranthene	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Fluorene	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Hexachlorobenzene	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Hexachlorobutadiene	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Hexachlorocyclopentadiene	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Hexachloroethane	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Indeno[1,2,3cd]pyrene	A	*4.6*	1.6		mg/Kg dry	4	09/12/2012 15:42
Isophorone	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Naphthalene	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Nitrobenzene	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
N-Nitrosodimethylamine	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
N-Nitrosodi-n-propylamine	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
N-Nitrosodiphenylamine	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42

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Analytical Results

Date: *Friday, September 14, 2012*

Client: DLZ Industrial
Client Project: REPO18 T.O. #11 - Sta 143+00
Client Sample ID: Soil Sample #1
Sample Description:
Matrix: Solid

Work Order/ID: 12I0192-01
Sampled: 09/06/2012 15:20
Received: 09/06/2012 16:48

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Semivolatile Organic Compounds		Method: **SW-846 8270C** Prep Method: **SW846 3550A**				Analyst: **clr** Prep Date/Time: **09/12/2012 06:45**	
Pentachlorophenol	A	*ND*	7.8		mg/Kg dry	4	09/12/2012 15:42
Phenanthrene	A	*1.8*	1.6		mg/Kg dry	4	09/12/2012 15:42
Phenol	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Pyrene	A	*7.4*	1.6		mg/Kg dry	4	09/12/2012 15:42
Pyridine	A	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Total Cresol	M	*ND*	1.6		mg/Kg dry	4	09/12/2012 15:42
Surr: 2,4,6-Tribromophenol	S	34.30	13.9-145		%REC	4	09/12/2012 15:42
Surr: 2-Fluorobiphenyl	S	23.80	28.1-110	IS	%REC	4	09/12/2012 15:42
Surr: 2-Fluorophenol	S	28.10	24.5-110		%REC	4	09/12/2012 15:42
Surr: Nitrobenzene-d5	S	25.90	33.6-110	IS	%REC	4	09/12/2012 15:42
Surr: Phenol-d5	S	35.70	29.6-110		%REC	4	09/12/2012 15:42
Surr: Terphenyl-d14	S	36.80	35.8-121		%REC	4	09/12/2012 15:42
Volatile Organic Compounds, 5035 prep, SB preserve		Method: **SW-846 8260B** Prep Method: **soil prep**				Analyst: **jln** Prep Date/Time: **09/11/2012 09:14**	
1,1,1,2-Tetrachloroethane	A	*ND*	0.013		mg/Kg dry	1	09/11/2012 19:23
1,1,1-Trichloroethane	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
1,1,2,2-Tetrachloroethane	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
1,1,2-Trichloroethane	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
1,1-Dichloroethane	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
1,1-Dichloroethene	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
1,2-Dichloroethane	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
1,2-Dichloropropane	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
2-Butanone	A	*0.074*	0.013		mg/Kg dry	1	09/11/2012 19:23
2-Hexanone	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
4-Methyl-2-Pentanone	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
Acetone	A	*0.34*	0.063	E	mg/Kg dry	1	09/11/2012 19:23
Acrolein	A	*ND*	0.13		mg/Kg dry	1	09/11/2012 19:23
Acrylonitrile	A	*ND*	0.13		mg/Kg dry	1	09/11/2012 19:23
Benzene	A	*0.0088*	0.0063		mg/Kg dry	1	09/11/2012 19:23
Bromodichloromethane	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
Bromoform	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
Bromomethane	A	*ND*	0.013		mg/Kg dry	1	09/11/2012 19:23
Carbon Disulfide	A	*0.023*	0.013		mg/Kg dry	1	09/11/2012 19:23
Carbon tetrachloride	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
Chlorobenzene	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
Chloroethane	A	*ND*	0.013		mg/Kg dry	1	09/11/2012 19:23
Chloroform	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
Chloromethane	A	*ND*	0.013		mg/Kg dry	1	09/11/2012 19:23
cis-1,2-Dichloroethene	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
cis-1,3-Dichloropropene	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23
Dibromochloromethane	A	*ND*	0.0063		mg/Kg dry	1	09/11/2012 19:23

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Analytical Results

Date: *Friday, September 14, 2012*

Client: DLZ Industrial
Client Project: REPO18 T.O. #11 - Sta 143+00
Client Sample ID: Soil Sample #1
Sample Description:
Matrix: Solid

Work Order/ID: 12I0192-01
Sampled: 09/06/2012 15:20
Received: 09/06/2012 16:48

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **SW-846 8260B**					Analyst: **jln**
Volatile Organic Compounds, 5035 prep, SB preserve		Prep Method: **soil prep**					Prep Date/Time: **09/11/2012 09:14**
Ethylbenzene	A	***0.0070***	0.0063		mg/Kg dry	1	09/11/2012 19:23
m,p-Xylene	A	***0.017***	0.0063		mg/Kg dry	1	09/11/2012 19:23
Methylene chloride	A	***ND***	0.025		mg/Kg dry	1	09/11/2012 19:23
Methyl-t-Butyl Ether	A	***ND***	0.0063		mg/Kg dry	1	09/11/2012 19:23
o-Xylene	A	***ND***	0.0063		mg/Kg dry	1	09/11/2012 19:23
Styrene	A	***ND***	0.0063		mg/Kg dry	1	09/11/2012 19:23
Tetrachloroethene	A	***ND***	0.0063		mg/Kg dry	1	09/11/2012 19:23
Toluene	A	***0.030***	0.0063		mg/Kg dry	1	09/11/2012 19:23
trans-1,2-Dichloroethene	A	***ND***	0.0063		mg/Kg dry	1	09/11/2012 19:23
trans-1,3-Dichloropropene	A	***ND***	0.0063		mg/Kg dry	1	09/11/2012 19:23
Trichloroethene	A	***ND***	0.0063		mg/Kg dry	1	09/11/2012 19:23
Total 1,2-Dichloroethene	M	***ND***	0.013		mg/Kg dry	1	09/11/2012 19:23
Trichlorofluoromethane	A	***ND***	0.013		mg/Kg dry	1	09/11/2012 19:23
Vinyl Acetate	A	***ND***	0.013		mg/Kg dry	1	09/11/2012 19:23
Vinyl chloride	A	***ND***	0.013		mg/Kg dry	1	09/11/2012 19:23
Total Xylenes	M	***0.023***	0.0063		mg/Kg dry	1	09/11/2012 19:23
Surr: 1,2-Dichloroethane-d4	S	138.00	51.7-162		%REC	1	09/11/2012 19:23
Surr: 4-Bromofluorobenzene	S	71.70	57.4-135		%REC	1	09/11/2012 19:23
Surr: Dibromofluoromethane	S	125.00	63.5-139		%REC	1	09/11/2012 19:23
Surr: Toluene-d8	S	141.00	66.6-143		%REC	1	09/11/2012 19:23
		Method: **SW-846 6010B**					Analyst: **SA**
Total Metals by ICP		Prep Method: **SW846 3050B**					Prep Date/Time: **09/10/2012 10:07**
Arsenic	A	***4.7***	0.47		mg/Kg	1	09/10/2012 22:06
Barium	A	***32***	0.19		mg/Kg	1	09/10/2012 22:06
Cadmium	A	***0.20***	0.19		mg/Kg	1	09/10/2012 22:06
Chromium	A	***12***	0.19		mg/Kg	1	09/10/2012 22:06
Lead	A	***4700***	0.35		mg/Kg	1	09/10/2012 22:06
Selenium	A	***ND***	1.4		mg/Kg	1	09/10/2012 22:06
Silver	A	***ND***	0.93		mg/Kg	1	09/10/2012 22:06
		Method: **SW-846 7471A**					Analyst: **RPL**
Total Mercury by CVAA		Prep Method: **SW-846 7471**					Prep Date/Time: **09/11/2012 10:00**
Mercury	A	***1.5***	0.43		mg/Kg dry	10	09/11/2012 14:57
		Method: **SM 2540 G-1997**					Analyst: **GRIEF**
Percent Solids							Prep Date/Time: **09/07/2012 15:30**
Percent Solids	A	***99***	0.10		wt%	1	09/07/2012 15:32

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Analytical Results

Date: *Friday, September 14, 2012*

Client: DLZ Industrial
Client Project: REPO18 T.O. #11 - Sta 143+00
Client Sample ID: Soil Sample #1 - TCLP
Sample Description:
Matrix: Solid

Work Order/ID: 12I0192-02
Sampled: 09/06/2012 15:20
Received: 09/06/2012 16:48

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
TCLP Mercury by CVAA		Method: **1311/7470A** Prep Method: **SW-846 1311/SW-846 7470**				Analyst: **RPL** Prep Date/Time: **09/11/2012 09:52**	
Mercury	A	***ND***	0.00100		mg/L	1	09/11/2012 14:32
TCLP Metals by ICP		Method: **1311/6010B** Prep Method: **/SW846 3005A**				Analyst: **SA** Prep Date/Time: **09/10/2012 10:00**	
Arsenic	A	***0.0152***	0.0100		mg/L	1	09/10/2012 21:15
Barium	A	***ND***	0.500		mg/L	1	09/10/2012 21:15
Cadmium	A	***0.00560***	0.00200		mg/L	1	09/10/2012 21:15
Chromium	A	***0.00540***	0.00300		mg/L	1	09/10/2012 21:15
Lead	A	***21.7***	0.00750		mg/L	1	09/10/2012 21:15
Selenium	A	***ND***	0.0300		mg/L	1	09/10/2012 21:15
Silver	A	***ND***	0.0100		mg/L	1	09/10/2012 21:15

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Analytical Results

Date: *Friday, September 14, 2012*

Client: DLZ Industrial
Client Project: REPO18 T.O. #11 - Sta 143+00
Client Sample ID: Soil Sample #2 Near Pile
Sample Description:
Matrix: Solid

Work Order/ID: 12I0192-03
Sampled: 09/06/2012 15:40
Received: 09/06/2012 16:48

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Polychlorinated Biphenyls		Method: **SW-846 8082** Prep Method: **SW846 3550B**				Analyst: **ep** Prep Date/Time: **09/11/2012 06:24**	
Aroclor 1016	A	*ND*	0.089		mg/Kg dry	1	09/12/2012 11:19
Aroclor 1221	A	*ND*	0.089		mg/Kg dry	1	09/12/2012 11:19
Aroclor 1232	A	*ND*	0.089		mg/Kg dry	1	09/12/2012 11:19
Aroclor 1242	A	*ND*	0.089		mg/Kg dry	1	09/12/2012 11:19
Aroclor 1248	A	*ND*	0.089		mg/Kg dry	1	09/12/2012 11:19
Aroclor 1254	A	*ND*	0.089		mg/Kg dry	1	09/12/2012 11:19
Aroclor 1260	A	*ND*	0.089		mg/Kg dry	1	09/12/2012 11:19
Aroclor 1262	A	*ND*	0.089		mg/Kg dry	1	09/12/2012 11:19
Aroclor 1268	A	*ND*	0.089		mg/Kg dry	1	09/12/2012 11:19
Total PCB's	A	*ND*	0.089		mg/Kg dry	1	09/12/2012 11:19
Surr: Decachlorobiphenyl	S	50.00	38-128		%REC	1	09/12/2012 11:19
Surr: Tetrachloro-m-xylene	S	50.00	40-130		%REC	1	09/12/2012 11:19
Semivolatile Organic Compounds		Method: **SW-846 8270C** Prep Method: **SW846 3550A**				Analyst: **clr** Prep Date/Time: **09/12/2012 06:45**	
1,2,4-Trichlorobenzene	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
1,2-Dichlorobenzene	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
1,2-Diphenyl-hydrazine	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
1,3-Dichlorobenzene	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
1,4-Dichlorobenzene	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2,2'-oxybis(1-chloropropane)	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2,4,5-Trichlorophenol	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2,4,6-Trichlorophenol	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2,4-Dichlorophenol	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2,4-Dimethylphenol	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2,4-Dinitrophenol	A	*ND*	17		mg/Kg dry	4	09/12/2012 16:02
2,4-Dinitrotoluene	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2,6-Dichlorophenol	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2,6-Dinitrotoluene	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2-Chloronaphthalene	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2-Chlorophenol	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2-Methylnaphthalene	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2-Methylphenol	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
2-Nitroaniline	A	*ND*	17		mg/Kg dry	4	09/12/2012 16:02
2-Nitrophenol	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
3,3'-Dichlorobenzidine	A	*ND*	17		mg/Kg dry	4	09/12/2012 16:02
3/4-Methylphenol	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
3-Nitroaniline	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
4,6-Dinitro-2-methylphenol	A	*ND*	17		mg/Kg dry	4	09/12/2012 16:02
4-Bromophenyl phenyl ether	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02
4-Chloro-3-methylphenol	A	*ND*	7.1		mg/Kg dry	4	09/12/2012 16:02
4-Chloroaniline	A	*ND*	3.6		mg/Kg dry	4	09/12/2012 16:02

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Analytical Results

Date: *Friday, September 14, 2012*

Client: DLZ Industrial
Client Project: REPO18 T.O. #11 - Sta 143+00
Client Sample ID: Soil Sample #2 Near Pile
Sample Description:
Matrix: Solid

Work Order/ID: 12I0192-03
Sampled: 09/06/2012 15:40
Received: 09/06/2012 16:48

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **SW-846 8270C**					Analyst: **clr**
Semivolatile Organic Compounds		Prep Method: **SW846 3550A**					Prep Date/Time: **09/12/2012 06:45**
4-Chlorophenyl phenyl ether	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
4-Nitroaniline	A	***ND***	17		mg/Kg dry	4	09/12/2012 16:02
4-Nitrophenol	A	***ND***	17		mg/Kg dry	4	09/12/2012 16:02
Acenaphthene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Acenaphthylene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Acetophenone	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Aniline	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Anthracene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Benzidine	A	***ND***	17		mg/Kg dry	4	09/12/2012 16:02
Benzo[a]anthracene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Benzo[a]pyrene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Benzo[b]fluoranthene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Benzo[g,h,i]perylene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Benzo[k]fluoranthene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Benzoic acid	A	***ND***	17		mg/Kg dry	4	09/12/2012 16:02
Benzyl alcohol	A	***ND***	7.1		mg/Kg dry	4	09/12/2012 16:02
Bis(2-chloroethoxy)methane	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Bis(2-chloroethyl)ether	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Bis(2-ethylhexyl)phthalate	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Butyl benzyl phthalate	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Carbazole	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Chrysene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Dibenz[a,h]anthracene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Dibenzofuran	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Diethyl phthalate	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Dimethyl phthalate	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Di-n-butyl phthalate	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Di-n-octyl phthalate	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Fluoranthene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Fluorene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Hexachlorobenzene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Hexachlorobutadiene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Hexachlorocyclopentadiene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Hexachloroethane	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Indeno[1,2,3cd]pyrene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Isophorone	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Naphthalene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Nitrobenzene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
N-Nitrosodimethylamine	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
N-Nitrosodi-n-propylamine	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
N-Nitrosodiphenylamine	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02

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Analytical Results

Date: *Friday, September 14, 2012*

Client: DLZ Industrial
Client Project: REPO18 T.O. #11 - Sta 143+00
Client Sample ID: Soil Sample #2 Near Pile
Sample Description:
Matrix: Solid

Work Order/ID: 12I0192-03
Sampled: 09/06/2012 15:40
Received: 09/06/2012 16:48

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Semivolatile Organic Compounds		Method: **SW-846 8270C** Prep Method: **SW846 3550A**				Analyst: **clr** Prep Date/Time: **09/12/2012 06:45**	
Pentachlorophenol	A	***ND***	17		mg/Kg dry	4	09/12/2012 16:02
Phenanthrene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Phenol	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Pyrene	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Pyridine	A	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Total Cresol	M	***ND***	3.6		mg/Kg dry	4	09/12/2012 16:02
Surr: 2,4,6-Tribromophenol	S	96.60	13.9-145		%REC	4	09/12/2012 16:02
Surr: 2-Fluorobiphenyl	S	45.50	28.1-110		%REC	4	09/12/2012 16:02
Surr: 2-Fluorophenol	S	58.10	24.5-110		%REC	4	09/12/2012 16:02
Surr: Nitrobenzene-d5	S	55.60	33.6-110		%REC	4	09/12/2012 16:02
Surr: Phenol-d5	S	78.30	29.6-110		%REC	4	09/12/2012 16:02
Surr: Terphenyl-d14	S	89.30	35.8-121		%REC	4	09/12/2012 16:02
Volatile Organic Compounds, 5035 prep, SB preserve		Method: **SW-846 8260B** Prep Method: **soil prep**				Analyst: **jln** Prep Date/Time: **09/11/2012 09:14**	
1,1,1,2-Tetrachloroethane	A	***ND***	0.040		mg/Kg dry	1	09/11/2012 19:53
1,1,1-Trichloroethane	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
1,1,2,2-Tetrachloroethane	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
1,1,2-Trichloroethane	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
1,1-Dichloroethane	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
1,1-Dichloroethene	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
1,2-Dichloroethane	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
1,2-Dichloropropane	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
2-Butanone	A	***0.56***	0.040		mg/Kg dry	1	09/11/2012 19:53
2-Hexanone	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
4-Methyl-2-Pentanone	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
Acetone	A	***2.4***	0.20	E	mg/Kg dry	1	09/11/2012 19:53
Acrolein	A	***ND***	0.40		mg/Kg dry	1	09/11/2012 19:53
Acrylonitrile	A	***ND***	0.40		mg/Kg dry	1	09/11/2012 19:53
Benzene	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
Bromodichloromethane	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
Bromoform	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
Bromomethane	A	***ND***	0.040		mg/Kg dry	1	09/11/2012 19:53
Carbon Disulfide	A	***0.19***	0.040		mg/Kg dry	1	09/11/2012 19:53
Carbon tetrachloride	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
Chlorobenzene	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
Chloroethane	A	***ND***	0.040		mg/Kg dry	1	09/11/2012 19:53
Chloroform	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
Chloromethane	A	***ND***	0.040		mg/Kg dry	1	09/11/2012 19:53
cis-1,2-Dichloroethene	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
cis-1,3-Dichloropropene	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53
Dibromochloromethane	A	***ND***	0.020		mg/Kg dry	1	09/11/2012 19:53

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Analytical Results

Date: *Friday, September 14, 2012*

Client: DLZ Industrial
Client Project: REPO18 T.O. #11 - Sta 143+00
Client Sample ID: Soil Sample #2 Near Pile
Sample Description:
Matrix: Solid

Work Order/ID: 12I0192-03
Sampled: 09/06/2012 15:40
Received: 09/06/2012 16:48

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Volatile Organic Compounds, 5035 prep, SB preserve		Method: **SW-846 8260B** Prep Method: **soil prep**				Analyst: **jln** Prep Date/Time: **09/11/2012 09:14**	
Ethylbenzene	A	*ND*	0.020		mg/Kg dry	1	09/11/2012 19:53
m,p-Xylene	A	*ND*	0.020		mg/Kg dry	1	09/11/2012 19:53
Methylene chloride	A	*ND*	0.080		mg/Kg dry	1	09/11/2012 19:53
Methyl-t-Butyl Ether	A	*ND*	0.020		mg/Kg dry	1	09/11/2012 19:53
o-Xylene	A	*ND*	0.020		mg/Kg dry	1	09/11/2012 19:53
Styrene	A	*ND*	0.020		mg/Kg dry	1	09/11/2012 19:53
Tetrachloroethene	A	*ND*	0.020		mg/Kg dry	1	09/11/2012 19:53
Toluene	A	*ND*	0.020		mg/Kg dry	1	09/11/2012 19:53
trans-1,2-Dichloroethene	A	*ND*	0.020		mg/Kg dry	1	09/11/2012 19:53
trans-1,3-Dichloropropene	A	*ND*	0.020		mg/Kg dry	1	09/11/2012 19:53
Trichloroethene	A	*ND*	0.020		mg/Kg dry	1	09/11/2012 19:53
Total 1,2-Dichloroethene	M	*ND*	0.040		mg/Kg dry	1	09/11/2012 19:53
Trichlorofluoromethane	A	*ND*	0.040		mg/Kg dry	1	09/11/2012 19:53
Vinyl Acetate	A	*ND*	0.040		mg/Kg dry	1	09/11/2012 19:53
Vinyl chloride	A	*ND*	0.040		mg/Kg dry	1	09/11/2012 19:53
Total Xylenes	M	*ND*	0.020		mg/Kg dry	1	09/11/2012 19:53
Surr: 1,2-Dichloroethane-d4	S	107.00	51.7-162		%REC	1	09/11/2012 19:53
Surr: 4-Bromofluorobenzene	S	82.60	57.4-135		%REC	1	09/11/2012 19:53
Surr: Dibromofluoromethane	S	105.00	63.5-139		%REC	1	09/11/2012 19:53
Surr: Toluene-d8	S	114.00	66.6-143		%REC	1	09/11/2012 19:53
Total Metals by ICP		Method: **SW-846 6010B** Prep Method: **SW846 3050B**				Analyst: **SA** Prep Date/Time: **09/10/2012 10:07**	
Arsenic	A	***75***	0.43		mg/Kg	1	09/10/2012 22:34
Barium	A	***110***	0.17		mg/Kg	1	09/10/2012 22:34
Cadmium	A	***1.4***	0.17		mg/Kg	1	09/10/2012 22:34
Chromium	A	***25***	0.17		mg/Kg	1	09/10/2012 22:34
Lead	A	***180***	0.33		mg/Kg	1	09/10/2012 22:34
Selenium	A	***1.3***	1.3		mg/Kg	1	09/10/2012 22:34
Silver	A	*ND*	0.87		mg/Kg	1	09/10/2012 22:34
Total Mercury by CVAA		Method: **SW-846 7471A** Prep Method: **SW-846 7471**				Analyst: **RPL** Prep Date/Time: **09/11/2012 10:00**	
Mercury	A	***0.19***	0.10		mg/Kg dry	1	09/11/2012 14:45
Percent Solids		Method: **SM 2540 G-1997**				Analyst: **GRIEF** Prep Date/Time: **09/07/2012 15:30**	
Percent Solids	A	***37***	0.10		wt%	1	09/07/2012 15:32

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Analytical Results

Date: *Friday, September 14, 2012*

Client: DLZ Industrial
Client Project: REPO18 T.O. #11 - Sta 143+00
Client Sample ID: Soil Sample #2 - TCLP
Sample Description:
Matrix: Solid

Work Order/ID: 12I0192-04
Sampled: 09/06/2012 15:40
Received: 09/06/2012 16:48

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
TCLP Mercury by CVAA		Method: **1311/7470A** Prep Method: **SW-846 1311/SW-846 7470**				Analyst: **RPL** Prep Date/Time: **09/11/2012 09:52**	
Mercury	A	***ND***	0.00100		mg/L	1	09/11/2012 14:15
TCLP Metals by ICP		Method: **1311/6010B** Prep Method: **/SW846 3005A**				Analyst: **SA** Prep Date/Time: **09/10/2012 10:00**	
Arsenic	A	***0.0622***	0.0100		mg/L	1	09/10/2012 19:26
Barium	A	***0.949***	0.500		mg/L	1	09/10/2012 19:26
Cadmium	A	***ND***	0.00200		mg/L	1	09/10/2012 19:26
Chromium	A	***ND***	0.00300		mg/L	1	09/10/2012 19:26
Lead	A	***ND***	0.00750		mg/L	1	09/10/2012 19:26
Selenium	A	***ND***	0.0300		mg/L	1	09/10/2012 19:26
Silver	A	***0.0143***	0.0100		mg/L	1	09/10/2012 19:26

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FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
b = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
CFU = Colony forming units
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent

ANALYTE TYPES: (AT)

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte
S = Surrogate
T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank
DUP = Method Duplicate
BS = Method Blank Spike
MS = Matrix Spike
ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank
CRL = Client Required Reporting Limit
PDS = Post Digestion Spike
QCS = Quality Control Standard
ICSA = Interference Check Standard "A"
ICSAB = Interference Check Standard "AB"
BSD = Method Blank Spike Duplicate
MSD = Matrix Spike Duplicate
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
OPR = Ongoing Precision and Recovery Standard
SD = Serial Dilution

CERTIFICATIONS

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

[1] The American Association for Laboratory Accreditation [A2LA] for Biological Testing, ISO/IEC 17025 (Certificate# 3045.01)
[2] The American Association for Laboratory Accreditation [A2LA] for Environmental Department of Defense Testing, ISO/IEC 17025 (Certificate# 3045.02)
[3] Illinois EPA for the analysis wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #200064)
[4] Illinois Department of Public Health for the microbiological analysis of drinking water (registry #1755266)
[5] Indiana DEM approved support laboratory for solid waste and wastewater analyses
[6] Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)
[7] Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)
[8] Kansas Department of Health and Environment for the analysis of drinking water, wastewater, and solid hazardous waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (Certificate No. E-10397)
[9] Kentucky EPPC for the analysis of samples applicable to the Underground Storage Tank program (lab #75)
[10] North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)
[11] Pennsylvania Department of Environmental Protection (Registration No.: 68-04863)
[12] Wisconsin DNR for the chemical analysis of wastewater and solid waste (lab #998036710)

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COOLER INSPECTION

Date: Friday, September 14, 2012

Client Name: DLZ Industrial

Date/Time Received: 09/06/2012 16:48

Work Order Number: 12I0192

Received by: Dave Bryant

Checklist completed by: 9/7/2012 9:44:00AM | Ken Smith

Reviewed by: 9/11/2012 | DPP

Carrier Name:

Cooler ID: Default Cooler

Container/Temp Blank Temperature: 6.00°C

After-Hour Arrival?	Yes	☐	No	☑		
Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	Not Present	☑
Custody seals intact on sample containers?	Yes	☐	No	☐	Not Present	☑
COC present?	Yes	☑	No	☐		
COC included sufficient client identification?	Yes	☑	No	☐		
COC included sufficient sample collector information?	Yes	☑	No	☐		
COC included a sample description?	Yes	☑	No	☐		
COC agrees with sample labels?	Yes	☑	No	☐		
COC identified the appropriate matrix?	Yes	☑	No	☐		
COC included date of collection?	Yes	☑	No	☐		
COC included time of collection?	Yes	☑	No	☐		
COC identified the appropriate number of containers?	Yes	☑	No	☐		
Samples in proper container/bottle?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		
All samples received within holding time?	Yes	☑	No	☐		
If the samples are preserved, are the preservatives identified?	Yes	☑	No	☐		

If No, adjusted by? _____

COC included the requested analyses?	Yes	☑	No	☐		
COC signed when relinquished and received?	Yes	☑	No	☐		
Samples received on ice?	Yes	☑	No	☐		
Samples properly preserved?	Yes	☑	No	☐		
Voa vials for aqueous samples have zero headspace?	Yes	☐	No	☐	No VOA vials submitted	☑

Cooler Comments:

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
12I0192-01	Soil Sample #1	
12I0192-02	Soil Sample #1 - TCLP	
12I0192-03	Soil Sample #2 Near Pile	
12I0192-04	Soil Sample #2 - TCLP	

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Samples Submitted to:
[ ] 250 West 84th Drive, Merrillville, IN 46410, Tel: 219-769-8378, Fax: 219-769-1664
[ ] 5713 West 85th Street, Indianapolis, IN 46278, Tel: 317-872-1375, Fax: 317-872-1379

Chain of Custody Record

Number 109094

Instructions on back

1210192 Dan Pauch
DLZ Industrial - Hammond, IN
Gary Airport
09/06/2012

Client Name DLZ IND	Project REPORT T.O. #11	Turnaround Time	Report Type
Address	Location Sta 143+00	[✓] Routine (7 working days)	[✓] Results Only [ ] Level II
City, State, Zip	PO #	[ ] RUSH* (notify lab)	[ ] Level III [ ] Level III CLP-like
Contact DIRK DL Anderson	Compliance Monitoring? [ ] Yes(1) [ ] No	_____ (needed by)	[ ] Level IV [ ] Level IV CLP-like
Telephone # 577-204-4712	(1)Agency/Program		[ ] EDD

Sampled by (PRINT) DIRK DL Anderson Sampler Signature [signature] Sampler Phone # 577-204-4712

Send Report via [ ] Mail [ ] Telephone [ ] Fax (fax #) _____ [✓] e-mail (address) danderson@dlz.com

* **Matrix Types:** Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

** **Preservative Types:** (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

Client Sample ID	Matrix*	Grab	Composite	Filtered	Date Collected	Time Collected	No. of Containers	Requested Analyses → Preservative Types ** ↓		SVOC	VOC	PCB	RCRA metals	TCLP metals			For Lab Use Only 1210192
soil sample #1	S		✓		9-6-12	1520	3			✓	✓	✓	✓	✓			01
soil sample #2 near pile	S		✓		9-6-12	1640	3			✓	✓	✓	✓	✓			02

Possible Hazard Identification [ ] Hazardous [ ] Non-Hazardous [ ] Radioactive **Sample Disposition** [ ] Dispose as appropriate [ ] Return [ ] Archive

Comments

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
[signature]	9-6-12/1648		
Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
Relinquished By (signature)	Date/Time	Received for Lab By (signature)	Date/Time
		[signature]	9/6/12 1648

Sample temperature upon receipt in degrees C =

rev. 11/04/04

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APPENDIX 2

Photographic Documentation

Photo 1 A photograph of the piles from the southeast corner looking north.

Photo 2 A view from the southeast corner looking west.

Photo 3 A view of the piles from the east looking west.

Photo 4 A view of the south pile from the west looking east.

Photo 5 The piles were covered with 6 and 4 mil thick plastic.

Photo 6 Dirt was placed over the seams of the plastic weigh down the plastic.

Photo 7 A view of the south pile looking east after being covered with plastic.

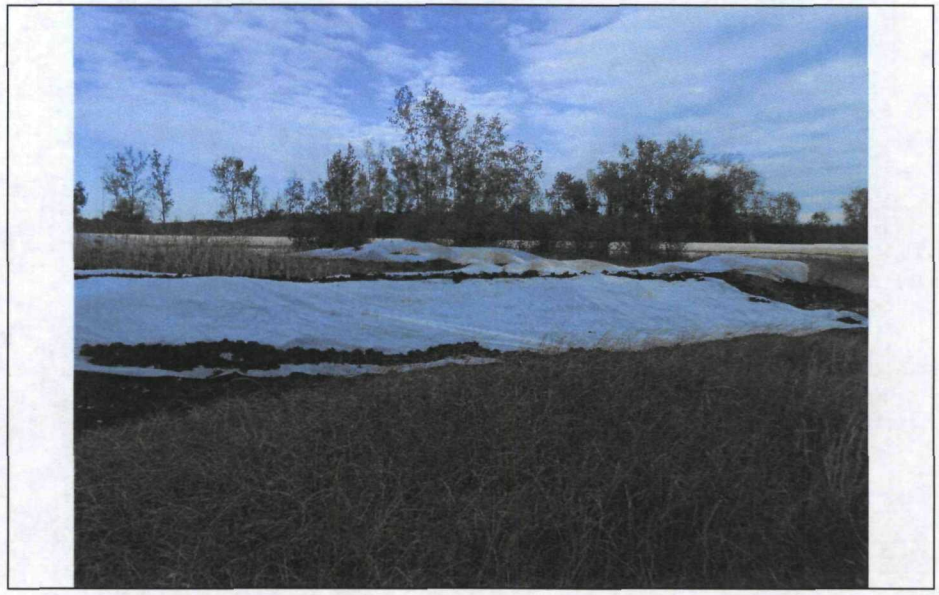

Photo 8 A view from the southwest looking northeast.

APPENDIX 3

Analytical Reports from IES from Additional Sampling

Microbac®

October 16, 2012

Industrial & Environmental Services, LLC
7550 E. Melton Rd
Gary, IN 46403-

Work Order No.: 12J0356

Re: Gary Chicago Airport / EJ&E Track Reallign

Dear Bob Casbon:

Microbac Laboratories, Inc. - Chicagoland Division received 5 sample(s) on 10/10/2012 1:50:00PM for the analyses presented in the following report as Work Order 12J0356.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Robert Crookston, Interim Managing Director, at robert.crookston@microbac.com. You may also contact Sean Hyde, Chief Operating Officer, at sean.hyde@microbac.com or James Nokes, President, at james.nokes@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Dan Paluch
Project Manager

Microbac®

WORK ORDER SAMPLE SUMMARY

Date: *Tuesday, October 16, 2012*

Client: Industrial & Environmental Services, LLC
Project: Gary Chicago Airport / EJ&E Track Reallign
Lab Order: 12J0356

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
12J0356-01	547706-A		10/08/2012 13:40	10/10/2012 1:50:00PM
12J0356-02	547706-B		10/08/2012 13:48	10/10/2012 1:50:00PM
12J0356-03	547706-C		10/08/2012 13:52	10/10/2012 1:50:00PM
12J0356-04	547706-D		10/08/2012 13:57	10/10/2012 1:50:00PM
12J0356-05	547706-E		10/08/2012 14:03	10/10/2012 1:50:00PM

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Analytical Results

Date: *Tuesday, October 16, 2012*

Client:	Industrial & Environmental Services, LLC		
Client Project:	Gary Chicago Airport / EJ&E Track Reallign		
Client Sample ID:	547706-A	**Work Order/ID:**	12J0356-01
Sample Description:		**Sampled:**	10/08/2012 13:40
Matrix:	Solid	**Received:**	10/10/2012 13:50

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **1311/6010B**					Analyst: **SA**
TCLP Metals by ICP		Prep Method: **SW-846 1311/SW846 3005A**					Prep Date/Time: **10/12/2012 09:25**
Lead	A	***22.9***	0.00750		mg/L	1	10/12/2012 15.21

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Analytical Results

Date: *Tuesday, October 16, 2012*

Client: Industrial & Environmental Services, LLC
Client Project: Gary Chicago Airport / EJ&E Track Reallign
Client Sample ID: 547706-B
Sample Description:
Matrix: Solid

Work Order/ID: 12J0356-02
Sampled: 10/08/2012 13:48
Received: 10/10/2012 13:50

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **1311/6010B**					Analyst: **SA**
TCLP Metals by ICP		Prep Method: **SW-846 1311/SW846 3005A**					Prep Date/Time: **10/12/2012 09:25**
Lead	A	***21.7***	0.00750		mg/L	1	10/12/2012 15:48

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Analytical Results

Date: *Tuesday, October 16, 2012*

Client: Industrial & Environmental Services, LLC
Client Project: Gary Chicago Airport / EJ&E Track Reallign
Client Sample ID: 547706-C
Work Order/ID: 12J0356-03
Sample Description:
Sampled: 10/08/2012 13:52
Matrix: Solid
Received: 10/10/2012 13:50

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **1311/6010B**					Analyst: **SA**
TCLP Metals by ICP		Prep Method: **SW-846 1311/SW846 3005A**					Prep Date/Time: **10/12/2012 09:25**
Lead	A	***1.68***	0.00750		mg/L	1	10/12/2012 15:54

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Analytical Results

Date: *Tuesday, October 16, 2012*

Client:	Industrial & Environmental Services, LLC		
Client Project:	Gary Chicago Airport / EJ&E Track Reallign		
Client Sample ID:	547706-D	**Work Order/ID:**	12J0356-04
Sample Description:		**Sampled:**	10/08/2012 13:57
Matrix:	Solid	**Received:**	10/10/2012 13:50

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **1311/6010B**					Analyst: **SA**
TCLP Metals by ICP		Prep Method: **SW-846 1311/SW846 3005A**					Prep Date/Time: **10/12/2012 09:25**
Lead	A	***1.08***	0.00750		mg/L	1	10/12/2012 16:00

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Analytical Results

Date: *Tuesday, October 16, 2012*

Client: Industrial & Environmental Services, LLC
Client Project: Gary Chicago Airport / EJ&E Track Reallign
Client Sample ID: 547706-E
Sample Description:
Matrix: Solid

Work Order/ID: 12J0356-05
Sampled: 10/08/2012 14:03
Received: 10/10/2012 13:50

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **1311/6010B**					Analyst: **SA**
TCLP Metals by ICP		Prep Method: **SW-846 1311/SW846 3005A**					Prep Date/Time: **10/12/2012 09:25**
Lead	A	***1.38***	0.00750		mg/L	1	10/12/2012 16:05

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FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
b = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
CFU = Colony forming units
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent

ANALYTE TYPES: (AT)

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte
S = Surrogate
T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank
DUP = Method Duplicate
BS = Method Blank Spike
MS = Matrix Spike
ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank
CRL = Client Required Reporting Limit
PDS = Post Digestion Spike
QCS = Quality Control Standard
ICSA = Interference Check Standard "A"
ICSAB = Interference Check Standard "AB"
BSD = Method Blank Spike Duplicate
MSD = Matrix Spike Duplicate
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
OPR = Ongoing Precision and Recovery Standard
SD = Serial Dilution

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[b] The American Association for Laboratory Accreditation [A2LA] for Environmental Department of Defense Testing, ISO/IEC 17025 (Certificate# 3045.02)
[c] Illinois EPA for the analysis wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #200064)
[d] Illinois Department of Public Health for the microbiological analysis of drinking water (registry #1755266)
Indiana DEM approved support laboratory for solid waste and wastewater analyses
[e] Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)
[f] Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)
[g] Kansas Department of Health and Environment for the analysis of drinking water, wastewater, and solid hazardous waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (Certificate No. E-10397)
[h] Kentucky EPPC for the analysis of samples applicable to the Underground Storage Tank program (lab #75)
[i] North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)
Pennsylvania Department of Environmental Protection (Registration No.: 68-04863)
[j] Wisconsin DNR for the chemical analysis of wastewater and solid waste (lab #998036710)

Microbac®

COOLER INSPECTION

Date: Tuesday, October 16, 2012

Client Name: Industrial & Environmental Services, LLC

Date/Time Received: 10/10/2012 13:50

Work Order Number: 12J0356

Received by: Dave Bryant

Checklist completed by: 10/10/2012 1:50:00PM | Dave Bryant

Reviewed by: 10/15/2012 | DPP

Carrier Name: Microbac

Cooler ID: Default Cooler

Container/Temp Blank Temperature: 6.00°C

After-Hour Arrival?	Yes	☐	No	☑		
Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	Not Present	☑
Custody seals intact on sample containers?	Yes	☐	No	☐	Not Present	☑
COC present?	Yes	☑	No	☐		
COC included sufficient client identification?	Yes	☑	No	☐		
COC included sufficient sample collector information?	Yes	☑	No	☐		
COC included a sample description?	Yes	☑	No	☐		
COC agrees with sample labels?	Yes	☑	No	☐		
COC identified the appropriate matrix?	Yes	☑	No	☐		
COC included date of collection?	Yes	☑	No	☐		
COC included time of collection?	Yes	☑	No	☐		
COC identified the appropriate number of containers?	Yes	☑	No	☐		
Samples in proper container/bottle?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		
All samples received within holding time?	Yes	☑	No	☐		
If the samples are preserved, are the preservatives identified?	Yes	☑	No	☐		

If No, adjusted by? _____

COC included the requested analyses?	Yes	☑	No	☐		
COC signed when relinquished and received?	Yes	☑	No	☐		
Samples received on ice?	Yes	☑	No	☐		
Samples properly preserved?	Yes	☑	No	☐		
Voa vials for aqueous samples have zero headspace?	Yes	☐	No	☐	No VOA vials submitted	☑

Cooler Comments:

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
12J0356-01	547706-A	
12J0356-02	547706-B	
12J0356-03	547706-C	
12J0356-04	547706-D	
12J0356-05	547706-E	

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Samples Submitted to:
[ ] 250 West 84th Drive, Merrillville, IN 46410, Tel: 219-769-8378, Fax: 219-769-1664
[ ] 5713 West 85th Street, Indianapolis, IN 46278, Tel: 317-872-1375, Fax: 317-872-1379

Chain of Custody Record

Number 84875

Instructions on back

12J0366 Dan Paluch IES - Gary, IN General Analysis

Client Name: INDUSTRIAL + ENV. SVCS.	Project: GARY CHICAGO AIRPORT	**Turnaround Time**	**Report Type**
Address: 7550 E. MELTON ROAD	Location: EJ+E TRACK REALIGN.	[X] Routine (7 working days)	[ ] Results Only [ ] Level II
City, State, Zip: GARY, IN. 46403	PO #	[ ] RUSH* (notify lab)	[ ] Level III [ ] Level III CLP-like
Contact: BOB CASBON	Compliance Monitoring? [ ] Yes(1) [ ] No	(needed by)	[ ] Level IV [ ] Level IV CLP-like
Telephone #: 219-406-4096	(1)Agency/Program		[ ] EDD

Sampled by (PRINT): ROBERT CASBON Sampler Signature: Robert D Sampler Phone #: 219-406-4096

Send Report via [ ] Mail [ ] Telephone [ ] Fax (fax #) [X] e-mail (address): bcasbon@iesolution.com

* **Matrix Types:** Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

** **Preservative Types:** (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

10/10/2012

Client Sample ID	Matrix*	Grab	Composite	Filtered	Date Collected	Time Collected	No. of Containers	Requested Analyses → Preservative Types ** ↓	TCLP LEAD ONLY	For Lab Use Only
S47706-A	S	X			10-5-12	13:40	1	N/A	X	12J0366 01
S47706-B	"	"			"	13:48	1	"	X	02
S47706-C	"	"			"	13:52	1	"	X	03
S47706-D	"	"			"	13:57	1	"	X	04
S47706-E	"	"			"	14:03	1	"	X	05

Possible Hazard Identification [ ] Hazardous [ ] Non-Hazardous [ ] Radioactive **Sample Disposition** [ ] Dispose as appropriate [ ] Return [ ] Archive

Comments

Sample temperature upon receipt in degrees C = 6°C

	Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
1	Robert D	10/10/12 1237		10/10/12 1237
2				
3		10/12/12 1229		10/10/12 1226

rev. 11/04/04